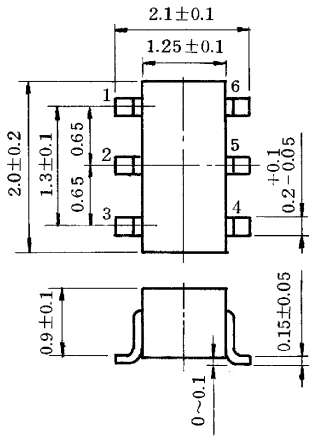
TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

RN2970, RN2971

SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT
AND DRIVER CIRCUIT APPLICATIONS.

- Including Two Devices in US6 (Ultra Super Mini Type with 6 leads)
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN1970~RN1971

Unit in mm

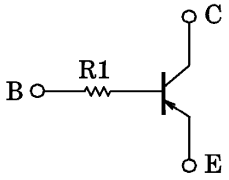


1. EMITTER 1 (E1)
2. EMITTER 2 (E2)
3. BASE 2 (B2)
4. COLLECTOR 2 (C2)
5. BASE 1 (B1)
6. COLLECTOR 1 (C1)

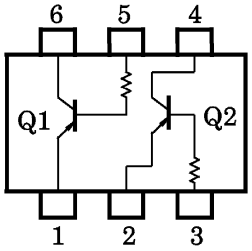
JEDEC	—
EIAJ	—
TOSHIBA	2-2J1B

Weight : 6.8mg

EQUIVALENT CIRCUIT



EQUIVALENT CIRCUIT (TOP VIEW)



MAXIMUM RATINGS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	−50	V
Collector-Emitter Voltage	V_{CEO}	−50	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−100	mA
Collector Power Dissipation	P_C*	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

* : Total Rating

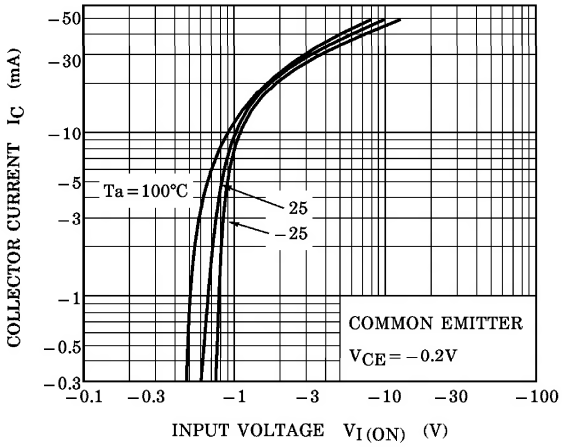
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB} = −50V, I_E = 0	—	—	−100	nA
Emitter Cut-off Current		I_{EBO}	V_{EB} = −5V, I_C = 0	—	—	−100	nA
DC Current Gain		h_{FE}	V_{CE} = −5V, I_C = −1mA	120	—	400	
Collector-Emitter Saturation Voltage		$V_{CE\ (sat)}$	I_C = −5mA, I_B = −0.25mA	—	−0.1	−0.3	V
Transition Frequency		f_T	V_{CE} = −10V, I_C = −5mA	—	200	—	MHz
Collector Output Capacitance		C_{ob}	V_{CB} = −10V, I_E = 0, f = 1MHz	—	3	6	pF
Input Resistor	RN2970	R1	—	3.29	4.7	6.11	kΩ
	RN2971			7	10	13	

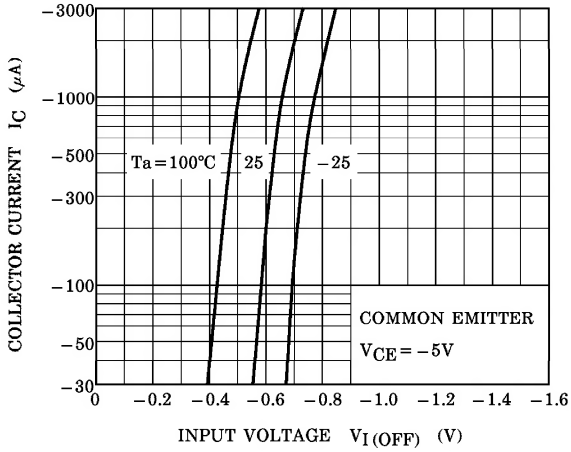
961001EAA2

(Q1, Q2 COMMON)

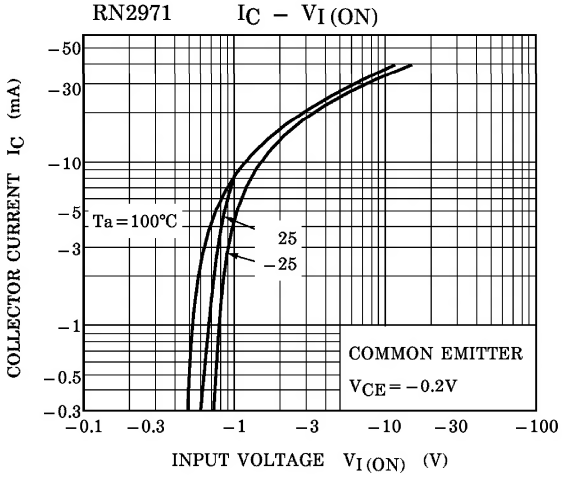
RN2970 I_C – $V_{I(ON)}$



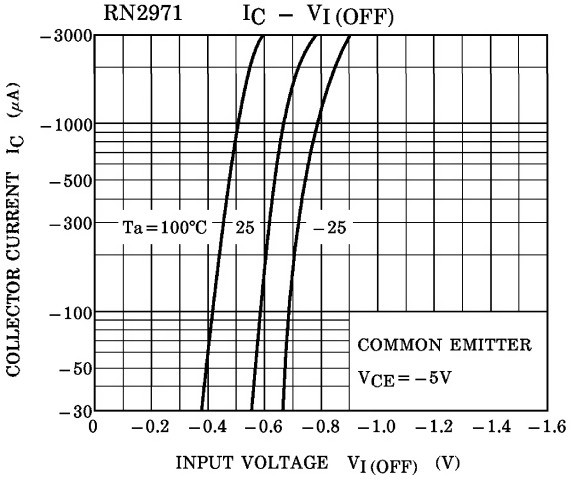
RN2970 I_C – $V_{I(OFF)}$



RN2971 I_C – $V_{I(ON)}$

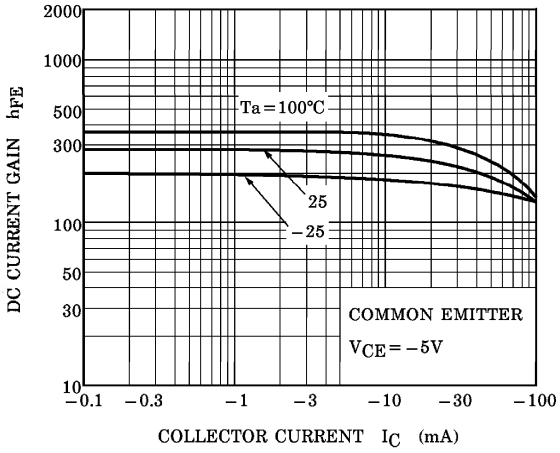


RN2971 I_C – $V_{I(OFF)}$

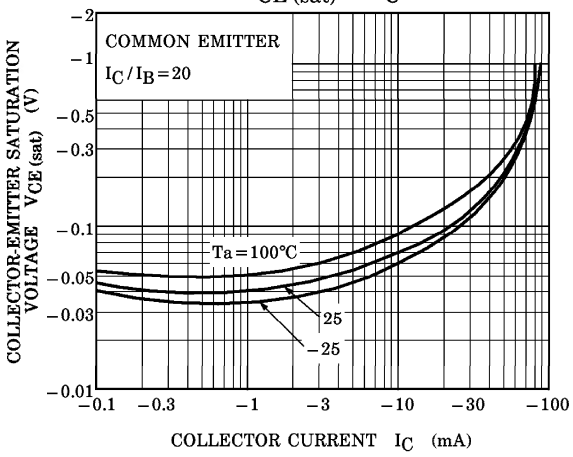


(Q1, Q2, COMMON)

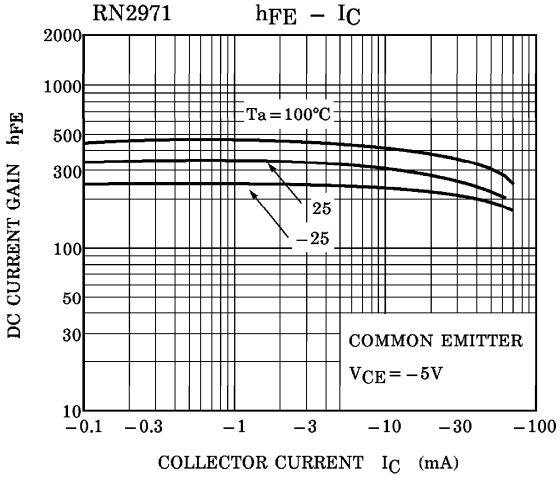
RN2970 h_{FE} – I_C



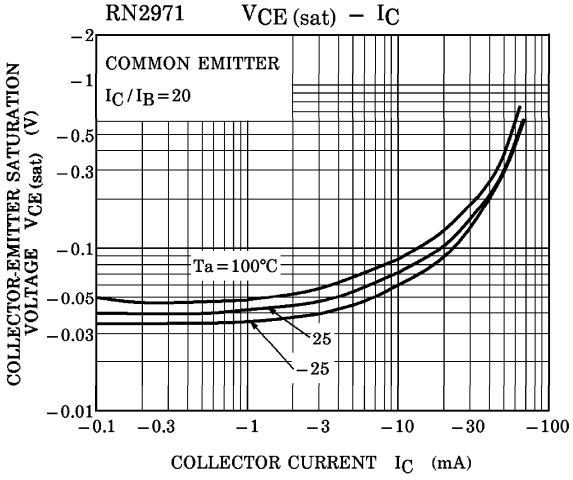
RN2970 $V_{CE\,(sat)}$ – I_C

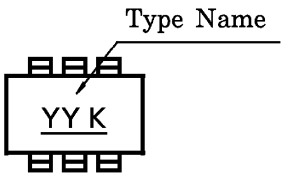


RN2971 h_{FE} – I_C



RN2971 $V_{CE\,(sat)}$ – I_C



TYPE NAME	MARKING
RN2970	
RN2971